

REMARKS

Reconsideration of this application is respectfully requested in view of the foregoing amendment and the following remarks.

Claims 1-22 are pending in this application. Minor amendments have been made to the drawings to place them in better form and to consistent with the description of the invention.

Applicants acknowledge with appreciation the indication of allowed and allowable subject matter. However, for the reasons stated below, Applicants respectfully submit that all claims pending in this application are in condition for allowance.

Preliminarily, during review of this application, Applicants noted some defective errors persisting in the drawings. In Fig. 1, the drain terminal of the MOS transistor Q1 should be connected to circuit node labeled "A" so as to coincide with the statement of the preferred embodiment that the MOS transistor Q1 is a NMOS transistor. Also, the zero-current level of the magnetizing current as shown in Fig. 2 is not designated. The drawings submitted herewith effect these minor changes to the drawings. Applicants respectfully submit these amendments are presented merely for the purpose of fixing the drafting defects containing in the drawings, without departing from the scope of the claimed invention or altering the original disclosure defined in the entire application. Applicants also respectfully submit that the support of such amendments can be found in the specification, and no new matter has been introduced in virtue of these amendments.

Turning now to the Office Action, claims 1, 3, 4, 10, 19 and 21 were rejected under 35 U.S.C. 102(b) as being anticipated by Bobel. This ground of rejection is respectfully traversed.

As per the Examiner's statements, Bodel discloses an inverter comprising a transformer (t1, t2), a first switch transistor (Q1), a second switch transistor (Q2), a reset capacitor (CR), and a control circuit (multi-vibrator or inductance L1, L2), wherein the configuration and function of the above elements are operatively identical with the claimed invention.

Applicants respectfully disagree with this analysis. The distinctive feature of the claimed invention is put on an inverter for igniting discharge tubes. The inverter of the claimed invention is a combination of two circuit stages consisting of a buck converter (step down converter) and a Royer inverter (push-pull inverter). It is understood by a person skilled in the art that the two switch transistors and the controller of the claimed invention form a buck converter stage that regulates the input DC power into a DC power of a lower magnitude, and the transformer and the controller of the claimed invention functions as a DC-AC inverter that induces an AC voltage on the secondary side of the transformer according to the on/off operations of the switch transistors. Through the use of the inverter circuit of the claimed invention, the capabilities of voltage regulation and power conversion can be fulfilled within a single circuit stage.

Also, as can be known by a person skilled in the art, a transformer is generally constituted by a primary winding and a secondary winding, which are wound on a ferromagnetic core and are magnetically coupled with each other. More specifically, the windings of a transformer are mutually dependent that can induce current and voltage on the secondary side of the transformer with amplitude and phase varying with time and depending on the turn ratio between the primary winding and the secondary winding. According to Bodel, the inductors that are treated as a transformer by the Examiner are magnetically independent with each other. Since the two

inductors of Bobel are magnetically independent with each other, it is unlikely to accomplish the operation of AC voltage induction and voltage magnification by the two magnetically-independent inductive elements. It is apparently that Bobel does not use an inverter that involves a transformer to induce AC voltage on its secondary side for powering discharge lamps. It is hardly for an artisan skilled in the art to allege that Bobel suggests an inverter which involves a transformer to induce an AC power tailored to power a discharge lamp according to the on/off operations of switch transistors disposed on the primary side of the transformer. Applicants respectfully call the Examiner's attention to the fact that Bobel does not use the topology of the inverter circuit of the claimed invention, nor does the reference suggest an inverter requiring a transformer to induce an AC power on its secondary side for powering discharge lamps. Accordingly, the claimed invention and Bobel should be classified as two totally different sorts of circuitry in nature.

For the reasons stated above, it is obvious that the claimed invention is absolutely impossible to be anticipated by Bobel. Applicants respectfully submit that Bobel neither uses a transformer to induce AC power intended for powering discharge lamps, nor uses two switch transistors located on the primary side of a transformer to regulate input DC power.

In view of the foregoing all of the claims in this case are believed to be in condition for allowance. Should the Examiner have any questions or determine that any further action is desirable to place this application in even better condition for issue, the Examiner is encouraged to telephone applicants' undersigned representative at the number listed below.

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Art Unit: 2821

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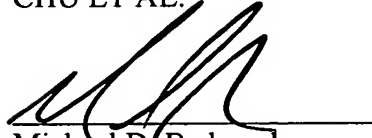
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Respectfully submitted,

CHU ET AL.

Date: May 27, 2003

By:

A handwritten signature in black ink, appearing to read 'M. Bednarek', is written over a horizontal line.

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Attachments: Replacement drawing sheets (Figs. 1-2)

MDB/LDE